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It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification. The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

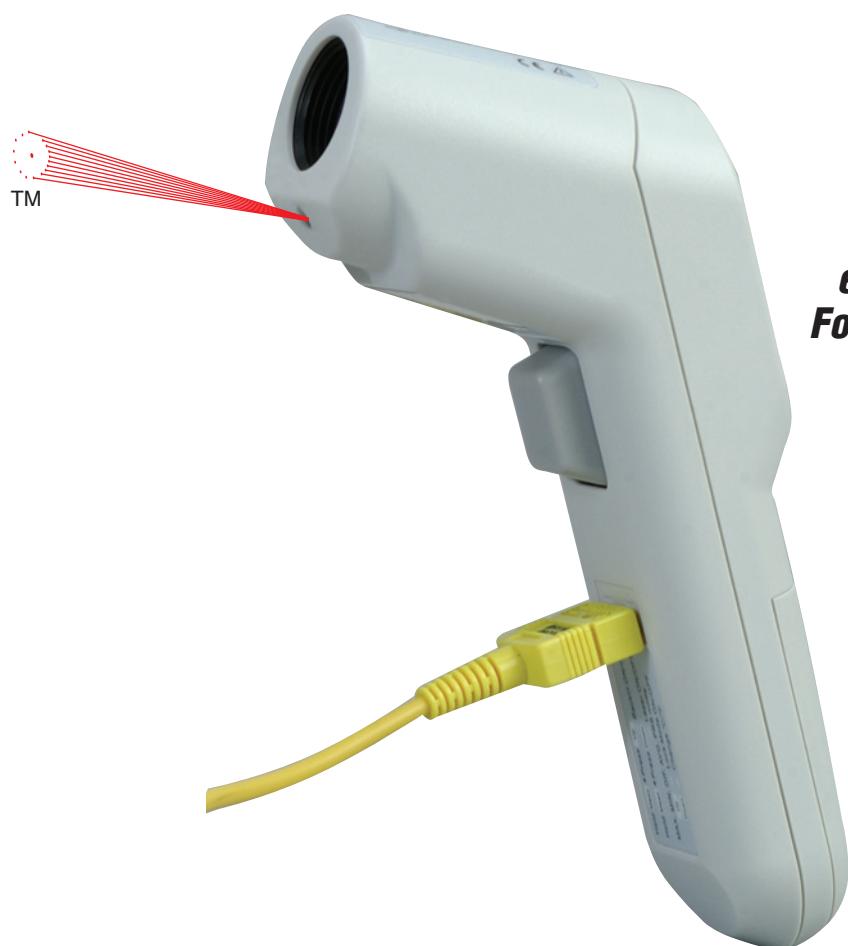
FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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ISO 9001
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CORPORATE QUALITY
STAMFORD, CT

ISO 9002
CERTIFIED
CORPORATE QUALITY
MANCHESTER, UK

OS562
Infrared Thermometer

OS562 Thermometer Operating Instructions

This thermometer is a non-contact infrared thermometer. There are many mathematical modes for the infrared function. Please remember to keep away from children and don't use it for safety-related applications.



Default Screen

Simply aim the thermometer at the measure target with Lens ⑦ and press Meas. key ⑨ to display the surface temperature.

The Distance:Spot is 11:1. Please make sure the target area is within the field of view.

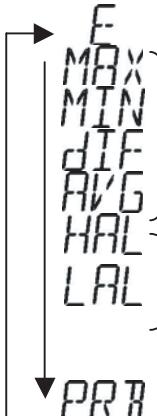
FUNCTION

Press Emissivity key ① for setting the emissivity.



Press Emissivity key ①, then press Up key ④ or Down key ② to set the emissivity, then press Mode key ⑤ to confirm it. The emissivity can be changed from 0.10 (10E) to 1 (100E).

Press Mode key ⑤ for scrolling more display functions as follows.



The emissivity data will show here. (The default emissivity is 0.95.)

Press Mode key ⑤ for the Maximum (MAX), Minimum (MIN), Difference between MAX and MIN (DIF) and Average (AVG) modes. During the measurement, the special modes reading will be displayed beside the mode icon.

Press Up key ④ or Down key ② to change the High Alarm (HAL) or Lo Alarm (LAL), then press Meas. key ⑨ to confirm it. For example: When the reading is 27°C with an LAL of 27.1°C, the Low icon will flash and you will hear a beep.

Connect the thermocouple with Thermocouple socket ⑩ and put the probe in/on the target. The thermometer will display the temperature automatically, without your needing to press any button. To see the minimum or maximum data during the probe measurement, hold down the Up key ④ or Down key ②.

⚠ After measuring high temps, the probe may remain HOT for while.

The thermometer will automatically shut off if left idle for more than 60 sec, unless in PRB mode. (In PRB mode, it will shut off if left idle for more than 12 minutes.)

ADD VALUE

In MAX, MIN, DIF, AVG mode:	Press Up key ④ for LOCK mode ON/OFF. The lock mode is particularly useful for continuous monitoring of temperatures for up to 60 minutes.
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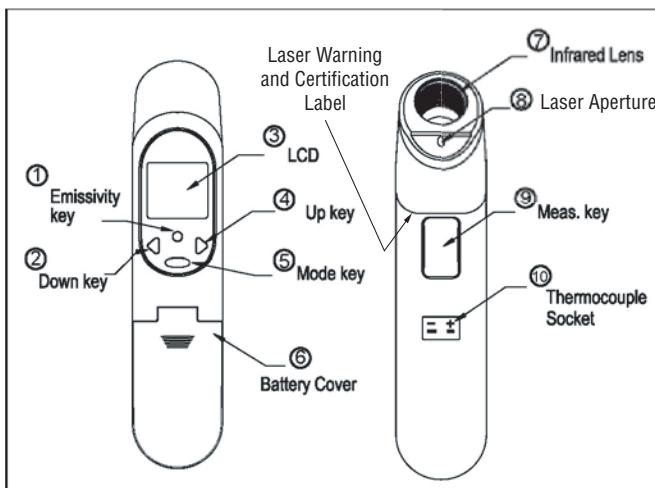
Press Down key ② for **°C or °F switching**.

In all modes: First hold down the Meas. key ⑨	and press Up key ④ for backlight function ON/OFF.
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and press Down key ② for **laser function** ON/OFF.

⚠ CAUTION You may receive harmful laser radiation exposure if you do not adhere to the warnings listed below:

1. Use of controls or adjustments or performance of procedures other than those specified here may result in hazardous radiation exposure.
2. Do not look at the laser beam coming out of the lens or view directly with optical instruments - eye damage can result.
3. Use extreme caution when operating the laser sighting.
4. Never point the laser beam at a person.
5. Do not attempt to open the thermometer. There are no user serviceable parts inside.
6. Keep out of reach of all children.



STORAGE & CLEANING

The thermometer should be stored at room temperature between -20 and 65°C (-4 and 149°F).

The sensor lens is the most delicate part of the thermometer. The lens should be kept clean at all times. Care should be taken when cleaning the lens; use only a soft cloth or cotton swab moistened with water or medical alcohol. Allow the lens to fully dry before using the thermometer. Do not submerge any part of the thermometer.

LCD ERROR MESSAGES

The thermometer incorporates visual diagnostic messages as follows:



'Hi' or 'Lo' is displayed when the temperature being measured is outside of the settings of HAL and LAL.

'Er2' is displayed when the thermometer is exposed to rapid changes in the ambient temperature. 'Er3' is displayed when the ambient temperature exceeds 0°C (32°F) or 50°C (122°F). The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature.

For all other error messages, it is necessary to reset the thermometer. To reset it, turn the instrument off, remove the batteries and wait for a minimum of one minute, reinsert the batteries and turn the instrument on. If the error message remains, please contact the Customer Service department for further assistance: 1-800-622-2378 or 203-359-1660. We can also be reached on the Internet at omega.com and by e-mail: info@omega.com

BATTERIES The thermometer incorporates visual low battery indication as follows:



'Battery OK': measurements are possible



'Battery Low': batteries need to be replaced; measurements are still possible



'Battery Exhausted': measurements are not possible

⚠ When the 'Low Battery' icon indicates the batteries are low, the batteries should be replaced immediately with AAA, 1.5 V batteries. Please note: It is important to turn the instrument off before replacing the batteries; otherwise the thermometer may malfunction.

⚠ Dispose of used batteries promptly and keep away from children.

SPECIFICATIONS

Item	Non-contact Infrared Scan function	Thermocouple probe Scan function (K type probe not included)
Measurement Range	-60 to 500°C (-76 to 932°F)	-64 to 1400°C (-83.2 to 1999°F)
Operating Range	0 to 50°C (32 to 122°F)	
Accuracy (Tobj=15~35°C, Tamb=25°C)	±1.0°C (1.8°F)	2% reading or 2°C (4°F) at 20 to 26°C (68 to 78°F) ambient
Accuracy (Tobj=-33~500°C, Tamb=23±3°C)	±2% of reading or 2°C (4°F), whichever is greater	
Resolution (-9.9~199.9°C)	0.1°C/0.1°F	
Response Time (90%)	1 sec	
Distance:Spot	11:1	
Built-in laser	Non-contact temperature measurement with laser circle sighting.	
Laser Power Output	<1mW	
Wavelength	630~670 nm, Red	
Laser Classification	Class 2, EN60825-1	
Beam Diameter	5mm	
Beam Divergence	<2mrad	
Laser Power Switch	(②)key	
Battery Life	Typ. 14 hours 18 min. continuous use (Alkaline, without Laser and Backlight.)	
Dimensions	175.2 x 39.0 x 71.9 mm (6.9 x 1.53 x 2.8 in)	
Weight	179 grams (6.3 oz) including batteries (AAA 2 pcs)	
Note:	Under an electromagnetic field of 3 V/m from 200 to 600 MHz, the maximum error is 10°C (18°F).	

⚠ Caution: The measure range is for thermometer only. User should choose proper probe types for different kinds of applications. Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.

EMC/RFI

Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.



PATENT NOTICE: U.S. PAT. B1 5,368,392; 5,524,984; 5,727,880; 5,823,678; 5,823,679; 6,123,453; 6,267,500 B1; 6,341,891 B1; 6,377,400 B1; 6,540,398 B2; 6,614,830 B1; 6,633,434 B2; 6,659,639; 6,901,089 B1 / Canada 2,114,806; 2,317,734 / France 2,756,920; 2,767,921; 2,773,213; 2,773,214 / Germany G 94 22 197.9; G 94 22 203.7 / Holland 1007752 / U.K. Registered 2,237,493; 2,320,324; 9726133.3 / EPO 0 644,408 B2; EPO 1085 307 A1. Other U.S. and Foreign Patents Pending.

